

III. REMARKS

Claim Rejections under 35 USC § 112

Claims 8 and 17-19 were rejected under 35 U.S.C. § 112 in relation to an apparent recitation of a load sensor providing a signal indicative of wear.

Claim Rejections under 35 USC § 102

Claims 1, 2 and 6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kuss et al (US Patent 3,939,690).

Claim Rejections under 35 USC § 103

Claims 7 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuss in view of Budd et al (US Patent 5,072,611).

Claims 4, 8 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuss in view of Chapman et al (US Patent 3,045,471).

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuss.

Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuss in view of Budd in further view of Chapman.

Allowable Subject Matter

Claim 5 was objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form, including all of the limitations of the base claims and any intervening claims.

Response to Rejections

Pursuant to current amendment guidelines, a complete listing and status of all claims presented in the application is provided above, and the text of all claims pending in the application, with revision markings per said guidelines to show current changes to currently amended claims.

In response to the 112 rejection of claim 8, dependency of claim 8 has been changed from claim 1 to claim 7, and the data analysis module (recited in claim 8) is further connected to the

linear wear sensor (recited in claim 7) for determining a relationship with the compressive test load. In response to the 112 rejection of claim 17-19, the objected-to recitation (regarding signal indicative of linear movement) has been deleted from claim 17. Applicant believes these changes address the 112 rejections, and remove the apparent recitation to a load sensor providing a signal indicative of wear.

In response to the 102 rejections, and in view of indication of allowability of claim 5, the elements of claim 5, and the elements associated therewith in claim 4 (to which claim 5 depended) have been added to claim 1. Correspondingly, claim 5 is canceled, and claim 4 is amended to remove those elements incorporated into claim 1. Therefore, applicant believes claim 1, and claims 2, 4, and 6-8 depending from claim 1, are now allowable over the prior art.

As regards claim 7 (and claim 18), applicant notes that Budd does not teach or suggest use of a position sensor to detect linear wear of test specimens in the axial direction of the applied test loads, and use of a position sensor for such purpose would not be obvious from or motivated by Budd. Instead, Budd teaches use of a position sensor 233 to sense the vertical position of the axial and moment load mechanism 250. This vertical position relates to the radial offset relative to the axle means 26 and thereby affects the moment load applied thereto. This vertical position is perpendicular to axial movement during the test, and nothing in Budd suggests use of the position sensor for other purposes. Claims 7 and 18 have been amended to clarify detection of movement along the axis of the applied load.

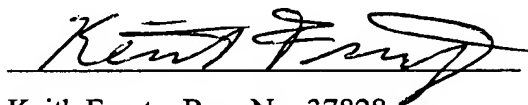
In response to the remaining 103 rejections, claim 17 has been amended to clarify, among other things, that the linear bearing element is located in-line between the diaphragm actuator and the holder and through which the load-rod extends for low-friction linear guided movement of the load-rod along the axis during a test. Such an arrangement, as now defined with the remainder of amended claim 17, is not taught or suggested by Kuss, Budd and/or Chapman, or the additional prior art cited in the office action. The driving shaft 27 of Kuss is not linearly movable during a test, but is, instead, pre-loaded into the "up" position shown in FIG. 2 by elements 38, and the elements 19, 32, 33, 34, 35, 36, 37 and 38. These elements are not equivalent to a linear bearing as defined in the claims because, among other things, they are not in the load path between the actuator and the holder, but are rather at top of the Kuss device and comprise the "special stuffing box 28", and they do not guide the load-rod between the actuator and the holder for guided movement during a test. Wear in the test specimens of the Kuss

arrangement will result in no axial movement of the shaft 27 because it is preloaded in the up direction during the test. Therefore, and in view of the above discussion regarding claims 7 and 18, applicant believes claims 17-19 patentably distinguish over the prior art of record.

New claims 20-28 are added as further definition of the invention to which applicant believes he is entitled. New claims 20-24 are directed to further dependent definition of the test machine as defined in claim 17. New claims 25-28 are directed to a test machine that includes, among other things, both a load sensor and a linear wear sensor connected in line in the axis of the test load path, and which is not taught or suggested in the prior art.

For the reasons discussed above, Applicant believes the claims under consideration in the application are now in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Keith Frantz", written over a horizontal line.

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